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ABSTRACT

This paper presents an example of a course syllabus that integrates the use of microcomputers as part of a recommendation that administrators become specialists in microcomputing in their preparatory programs. Computers' dramatically reduced costs, in combination with increased power, has made them easily available in the form of microcomputers. Administrators should have an understanding of the potential and processes involved in order to attain institutional objectives through institutional research--analysis and evaluaiton of the complex variables in a system's operation. Faculty in administrator preparation programs must reexamine curricula to identify appropriate areas where microcomputers will assist in developing administrators to become more skilled and effective. The course syllabus provided for resource management illustrates the scope and sequence of content, software used, the reading file, assignments and course requirements, and criteria for evaluation. The course syllabus and lists of software for the Apple II or IIc and for the IBM PC comprise three-fourths of the document. (CJH)

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INTEGRATING MICROCOMPUTERS INTO PREPARATION PROGRAMS

Bruce A. Peseau

University of Alabama
Tuscaloosa, Alabama

November 11, 1986

Paper presented at the Annual Meeting of the Southern Regional Council for Educational Administration (Atlanta, GA, November 9-11, 1986).

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Integrating Microcomputing into Preparation Programs

Bruce A. Peseau

The University of Alabama

The development of computers, with their incredible capability for managing and processing information, is a major technological breakthrough in modern society. More important, their dramatically reduced cost, in combination with increased power, has made them easily available and affordable in the form of desk-top microcomputers. Since the majority of the administrators' work involves the processing of information, microcomputers have enormous potential for managing and processing that information. The question is, where and to what extent should microcomputing be integrated into administrator preparation programs?

I would not propose that educational managers should become specialists in microcomputing. Their time must necessarily be spent primarily in dealing with people, not sitting before a machine crunching data. However, administrators must have an understanding and appreciation of the potential and processes involved. Managers lead and direct others in the organization to do the work necessary to achieve the institution's goals and objectives. Our preparation programs can contribute to administrators' understanding and appreciation of what others could and should do to enhance the work of everyone. We need to selectively integrate microcomputer learnings in appropriate places throughout our curricula.

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Some learnings and their related courses are obvious: developing and managing budgets, controlling inventory, managing logistics, creating and using student records systems, scheduling students and buses, keeping track of the flow of texts and library books, etc. Beyond that, microcomputers can help administrators improve their understandings and skills in the most neglected area of school systems: institutional research--analysis of the complex variables in operation and how we're doing as a system.

Faculty in administrator preparation programs must reexamine our curricula to identify appropriate places where microcomputers will help in developing administrators become more skilled and effective. At The University of Alabama, we have changed from mainframe to microcomputer applications in some preparation courses. We redesigned another course to include an overview of basic microcomputer application and software in databases, spreadsheets, word processing, and graphics and how these can be used in the local school and system levels. Now, we're reviewing the entire curriculum, especially those courses in finance, school system budgeting, personnel administration, and physical plant planning to identify where limited microcomputer learnings might be appropriate.

As an example, a course syllabus for one course, Resource Management, is attached to show the scope and sequence of content, software used, the reading file, assignments and course requirements, and the criteria for evaluation.

AEL 656: RESOURCE MANAGEMENT
DR. BRUCE PESEAU

COURSE OBJECTIVES:

1. To learn the nature and operation of the microcomputer, and its possible contributions to educational administration.

2. To learn selected commercial software (word processing, spreadsheet, database, etc.) and experiment with creative, original applications of these to administrative problems.

3. To learn and apply selected "vertical" software (designed for particular purposes), appropriate for educational purposes.

COURSE REQUIREMENTS

1. Produce printouts of the following:
-at least one public domain program application (budget forecast, grade manager, enrollment forecast, or salary schedule plan).
-at least one application using commercial software to produce each of the following:
-a budget statement
-a personnel record
-a payroll deduction matrix
-an inventory control record
-a memorandum to the faculty
-at least two applications from the vertical software group
(These 8 printouts at 10 points each = 80 points)

2. Give a presentation to the class of one of the pieces of either commercial or vertical software, then be available as tutor to help others in the class learn that software. (30 points).

3. Write two software reviews. (20 points each = 40 points).

4. Read and submit a synopsis of at least 6 articles concerning the administrative uses of microcomputers. (6 x 5 points each = 30 points)

5. Create and produce a project of your own design, showing its appropriateness to educational administration. (20 points)

Class Meeting Dates 300 Graves

July 14-16
July 21-23
July 28-30
August 4-6
August 11-13

(Minimum) Course Requirements for AEL 656

1. Printouts of administrative applications:

   a) public domain (MECC or PC-SIG)
      Printout of the complete application, including all Subsections. If data are required, these should be extensive and typical of a large school system.

   b) budget statement
      Entries should include all typical debits and credits, with mathematical formulas appropriate for combining other entries.

   c) personnel record
      Could be a database or spreadsheet, to include biographic data as would be used in a large system.

   d) payroll deduction matrix
      Include gross salary, all deductions expressed as either a percentage of gross salary (FICA) or fixed amount (health insurance). Result should be net salary, both annually and as either 10- or 12-month payments.

   e) inventory control
      Develop an extensive database (150-200 items at least), with item name, ID number, quantity of item, initial cost, amortized cost, current value, current condition, location, etc. Produce both a basic file printout and others which are sorted alphabetically, by cost, location, etc.

   f) memorandum to the faculty
      Two or three pages, discussing changes in policies or procedures, a new project being planned, tips for improved classroom management, or other topics. Show your knowledge of formatting, page breaks, underlining, etc.

   g) two vertical software applications
      Produce the entire range of output available from these programs, using extensive data.

2. Presentation to the class:

   Develop your presentation sequentially, as if you were teaching a group. Include some handouts. Use either the monitor or overhead transparencies to demonstrate the application. Be available to tutor other classmates if they wish to learn your application more fully.

3. Two software reviews:

   Use the checklist for software evaluation provided to you. Read several software reviews to see how they were done. Be critical: would it be useful to administrators, or not?

4. Synopsis of 6 articles:

   Include a standard bibliographic entry, a synopsis of the article, and your own critical evaluation of what you learned, how useful it might be, whether you would recommend it, etc. Limit to no more than two cards or two pages.

5. Project of your own design.

   The capstone of your creative efforts. Appropriate application for administration.

	A	B	C	D	E	F	G	H	I	J	K
1.	AEL 656 SOFTWARE										
2	==========										
3	TITLE/ TYPE	WORD PROCESS'G	DATA BASES	SPREAD-SHEETS	GRAPHS	STAT-ISTICS	COMMUNI-CATIONS	BUDGETS	FORMS	PRINTER SETUP	PROGRAM-MING
4											
5	- ----------										
6	FOR APPLE II OR IIc										
7											
8	ACEWRITER	X							X		
9	WORDHANDLER	X							X		
10	.....										
11	VISICALC			X	X			X	X		
12	VISICALC(ADV.)			X	X			X	X		
13	ACECALC			X	X			X	X		
14	PRACTICALC			X	X			X	X		
15	.....										
16	Pfs:REPORT		X						X		
17	Pfs:FILE		X						X		
18	VISIFILE		X						X		
19	.....										
20	STATS W/ DAISY				X	X					
21	.....										
22	PRINTSHOP										
23	FONTRIX										
24	.....										
25	Pfs:GRAPH				X						
26	VISITREND/PLOT				X	X					
27	EASYFLOW CHARTS										
28	.....										
29	GRADEAID										
30	GRADE MANAGER										
31	.....										
32	TEST GENERATOR										
33	EASY QUIZ MAKER										
34	MULTIPLE CHOICE										
35	.....										
36	Pfs:RECORDKEEPER							X	X		
37	CLASSIFIER										
38	OFFICER										
39	ENROLL										
40	STUDENT ORGANIZER								X		
41	ENROLL/SALARY										
42	.....										
43	==========										
44	FOR THE IBM PC										
45											
46	FREECALC			X	X			X			
47	PERFECT CALC			X	X			X			
48	SUPERCALC 3		X	X	X	X		X		X	
49	SUPERCALC 3(V.1)		X	X	X	X		X		X	
50	SUPERCALC 3(V.2)		X	X	X	X		X		X	
51	LOTUS 1-2-3		X	X	X	X		X		X	
52	OPEN ACCESS	X	X	X	X	X		X		X	
53	.....										
54	FILEBASE		X						X		
55	CONDOR I		X						X		
56	.....										
57	PERFECT WRITER	X									
58	Pfs:WRITE	X									
59	.....										
60	BPS BUS. GRAPHICS				X						
61	NCHEMS DEC SUP SY		X								
62	EDUCALC		X		X						
63	----------										

65														
66	SPSS TUTORIAL						X							
67	COPY PC/UNLOCK													
68	PC-FILE			X										
69	EXPLIST/EXPMAIL											X		
70	PC-TALK								X					
71														
72	KERMIT MICRO/MAIN								X					
73	FINANCE/CRIT.PATH										X			
74	DESKTOP V.1 & 2			X		X		X			X			
75	LABEL/PRINT/FILE	X		X		X							X	
76	WORDFLEX	X												
77		X												
78	FORMS MANAGER											X		
79	PC-WRITE													
80	RAMDRIVE/MAILLIST													
81	.BAT FILE TUTOR												X	X
82	FRED(FREE EDITOR)	X						X						X
83														
84	EPISTAT STATISTIC					X								
85	MINICALC/MAILLIST				X									
86	PC PROFESSOR													X
87	DISK CATALOG													X
88	123 UTILITY/MACRO			X		X		X			X		X	
89				X										
90	ABC DATABASE							X						
91	123 FLOWCHARTS													
92	EASYRITE/LABELS	X										X		
93	FINANCE MANAGER				X			X			X	X		
94	PERSONAL FIN. MGR				X			X			X	X		
95					X									
96	EASYMAIL	X		X								X	X	
97	FREECALC/PC-PAD			X		X		X			X			
98	EASYFILE/AUTOFILE			X				X						
99	UNPROTECT													
100	PC-CALC			X		X		X			X			
101														
102	PC TO MAINFRAME								X					
103	PERT/REGRESSION							X						
104	ADDRESS MANAGER			X								X	X	
105	NEWBASE			X				X				X		
106	INVENTORY CONTROL			X								X		
107				X										
108	PC GENERAL LEDGER				X			X			X	X		
109	==========													
110														
111														
112														
113														
114														
115														
116														
117														
118														
119														
120														

TITLE/ TYPE	LABELS	CATALOG	TUTORIAL	NOTICES POSTERS	GRADE MANAGER	ENROLL-MENTS	SCHED-ULING	TESTS	RECORD KEEPING
FOR APPLE II OR IIc									
ACEWRITER	X								
WORDHANDLER	X								
VISICALC									
VISICALC(ADV.)									
ACECALC									
PRACTICALC									
Pfs:REPORT	X								
Pfs:FILE	X								
VISIFILE	X								
STATS W/ DAISY									
PRINTSHOP									
FONTRIX									
Pfs:GRAPH									
VISITREND/PLOT									
EASYFLOW CHARTS									
GRADEAID									
GRADE MANAGER									
TEST GENERATOR									
EASY QUIZ MAKER									
MULTIPLE CHOICE									
Pfs:RECORDKEEPER	X								
CLASSIFIER									
OFFICER									
ENROLL									
STUDENT ORGANIZER									
ENROLL/SALARY									
FOR THE IBM PC									
FREECALC									
PERFECT CALC									
SUPERCALC 3	X								
SUPERCALC 3(V.1)	X								
SUPERCALC 3(V.2)	X								
LOTUS 1-2-3	X								
OPEN ACCESS	X								
FILEBASE	X								
CONDOR I	X								
PERFECT WRITER	X								
Pfs:WRITE	X								
BPS BUS. GRAPHICS									
MCHEMS DEC SUP SY									
EDUCALC									

SPSS TUTORIAL		X				
COPY PC/UNLOCK	X					
PC-FILE	X	X				X
EIPLIST/EIPMAIL	X					
PC-TALK		X				
KERMIT MICRO/MAIN						
FINANCE/CRIT.PATH					X	X
DESKTOP V.1 & 2	X					X
LABEL/PRINT/FILE	X					X
WORDFLEX	X		X			X
FORMS MANAGER	X		X			X
PC-WRITE	X					
RAMDRIVE/MAILLIST	X					X
.BAT FILE TUTOR		X				
FRED(FREE EDITOR)	X					
EPISTAT STATISTIC						
MINICALC/MAILLIST	X					X
PC PROFESSOR		X				
DISK CATALOG	X					X
123 UTILITY/MACRO		X				
ABC DATABASE	X					
123 FLOWCHARTS					X	
EASYRITE/LABELS	X	X				X
FINANCE MANAGER		X				
PERSONAL FIN. MGR		X				
PERS. GEN. LEDGER						
EASYMAIL	X					X
FREECALC/PC-PAD	X	X				X
EASYFILE/AUTOFILE	X	X				X
UNPROTECT		X				
PC-CALC	X					X
PC TO MAINFRAME						
PERT/REGRESSION					X	X
ADDRESS MANAGER	X	X				X
NEWBASE	X	X				X
INVENTORY CONTROL						X
PC GENERAL LEDGER		X				X

	X	Y	Z	AA	AB	AC	AD
TITLE/ TYPE	ATTEND-ANCE	INVENTORY CONTROL		MAILING LISTS	SALARY SCHEDULE	NETWORK METHODS	HIGHER ED MGMT
FOR APPLE II OR IIc							
ACEWRITER				X			X
WORDHANDLER				X			X
VISICALC			X		X		X
VISICALC(ADV.)			X		X		X
ACECALC			X		X		X
PRACTICALC			X		X		X
Pfs:REPORT				X			X
Pfs:FILE				X			X
VISIFILE				X			X
STATS W/ DAISY							X
PRINTSHOP							
FONTRIX							
Pfs:GRAPH							X
VISITREND/PLOT							X
EASYFLOW CHARTS						X	X
GRADEAID							
GRADE MANAGER							
TEST GENERATOR							
EASY QUIZ MAKER							
MULTIPLE CHOICE							
Pfs:RECORDKEEPER		X		X			X
CLASSIFIER							X
OFFICER	X						X
ENROLL							X
STUDENT ORGANIZER	X						X
ENROLL/SALARY					X		X
FOR THE IBM PC							
FREECALC			X		X		X
PERFECT CALC			X		X		X
SUPERCALC 3			X	X	X		X
SUPERCALC 3(V.1)			X	X	X		X
SUPERCALC 3(V.2)			X	X	X		X
LOTUS 1-2-3			X	X	X		X
OPEN ACCESS			X	X	X		X
FILEBASE			X	X			X
CONDOR I			X	X			X
PERFECT WRITER				X			X
Pfs:WRITE				X			X
BPS BUS. GRAPHICS							X
MCHEMS DEC SUP SY							X
EDUCALC							X

64	FOR PUBLIC DOMAIN						
65							
66	SPSS TUTORIAL						
67	COPY PC/UNLOCK						
68	PC-FILE		X	X	X		X
69	EXPLIST/EXPMAIL			X			X
70	PC-TALK						X
71							
72	KERMIT MICRO/MAIN						X
73	FINANCE/CRIT.PATH					X	X
74	DESKTOP V.1 & 2						X
75	LABEL/PRINT/FILE			X			
76	WORDFLEX			X			
77							
78	FORMS MANAGER	X	X	X			
79	PC-WRITE			X			
80	RAMDRIVE/MAILLIST			X			
81	.BAT FILE TUTOR						X
82	FRED(FREE EDITOR)						
83							
84	EPISTAT STATISTIC						X
85	MINICALC/MAILLIST		X	X	X		
86	PC PROFESSOR						X
87	DISK CATALOG						
88	123 UTILITY/MACRO		X	X	X		X
89							
90	ABC DATABASE		X	X	X		X
91	123 FLOWCHARTS					X	X
92	EASYRITE/LABELS			X			
93	FINANCE MANAGER						X
94	PERSONAL FIN. MGR						X
95	PERS. GEN. LEDGER						
96	EASYMAIL			X			
97	FREECALC/PC-PAD		X	X	X		
98	EASYFILE/AUTOFILE		X	X	X		
99	UNPROTECT						
100	PC-CALC		X	X	X		
101							
102	PC TO MAINFRAME						X
103	PERT/REGRESSION					X	X
104	ADDRESS MANAGER			X			
105	NEWBASE		X	X	X		
106	INVENTORY CONTROL		X				X
107							
108	PC GENERAL LEDGER						X
109	==========						
110							